NOTICE THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED OR DISCLOSED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF RAMTEK CORPORATION. HOWEVER, IF THIS DRAWING IS SPECIFIED TO BE GIVEN TO ANY BRANCH OF GOVERNMENT THIS DRAWING MAY BE USED AS PERMITTED BY THE DATA CLAUSE PER CONTRACT OR SUBCONTRACT.

REVISIONS

LTR	DESCRIPTION	APVD	DATE
A	PROD. RELEASE PER ECO 506263	T.L.	12-13-74
B	REV PER ECO 506267	E.C.	1/3/75
C	REV PER ECO 506284	E.C.	1/20/75

	QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

TOLERANCES
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
.XX .XXX ANG
MATL
FINISH
0550185
NEXT ASSY

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	T. Coulter	12/11/74
CHK	T. Coulter	12/13/74
ENG		
APVD		12/13/74

RAMTEK

TITLE LOGIC DIAGRAM BD # 1 BASEBALL (MSTR TIMING)

SIZE D
SCALE
SHT 1 OF 5
DWG NO. 550284
REV C

501003 REV. A

NOTICE THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED OR DISCLOSED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF RAMTEK CORPORATION. HOWEVER, IF THIS DRAWING IS SPECIFIED TO BE GIVEN TO ANY BRANCH OF GOVERNMENT THIS DRAWING MAY BE USED AS PERMITTED BY THE DATA CLAUSE PER CONTRACT OR SUBCONTRACT.

REVISIONS			
LTR	DESCRIPTION	APVD	DATE
A	PRODUCTION RELEASE PER ECO 506263	T.L.	12/3/74
B	REV PER ECO 506272	E.C.	1/6/75
C	REV PER ECO 506284	E.C.	1/20/75

QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

	TOLERANCES UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES. .XX .XXX ANG	DO NOT SCALE DRAWING		RAMTEK
		SIGNATURES	DATE	
		DWN	DEC 7,74	TITLE LOGIC DIAGRAM BD.# 2 BASEBALL (BALL & AUDIO)
	MATL	CHK	12.13.74	
550186		ENG		SIZE D
NEXT ASSY	FINISH	APVD		SCALE SHT 1 OF 5
				DWG NO. 550285
				REV C

LTR	DESCRIPTION	APVD	DATE
A	PROD. RELEASE PER ECO 506263	T.L.	12-13-74
B	REV PER ECO 506272	E.C.	1/6/75
C	REV PER ECO 506254	E.C.	1/20/75

QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

TOLERANCES
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
XX .XXX ANG
MATL
FINISH
NEXT ASSY 2550186

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	T. Lauchy	12/13/74
CHK	T. Lauchy	12/13/74
ENG	[illegible]	12/12/74
APVD	[illegible]	12/12/74

RAMTEK

TITLE: LOGIC DIAGRAM BD # 2 BASEBALL (PLAY CONTR & INTERCEPT)

SIZE D SCALE SHT 4 OF 5
DWG NO. 550285
REV C

601003 REV. A

NOTICE THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED OR DISCLOSED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF RAMTEK CORPORATION. HOWEVER, IF THIS DRAWING IS SPECIFIED TO BE GIVEN TO ANY BRANCH OF GOVERNMENT THIS DRAWING MAY BE USED AS PERMITTED BY THE DATA CLAUSE PER CONTRACT OR SUBCONTRACT

REVISIONS

LTR	DESCRIPTION	APVD	DATE
A	PROD. RELEASE PER ECO 506263	T.L.	12-13-74
B	REV PER ECO 506272	E.C.	1/6/75
C	REV PER ECO 506284	E.C.	1/26/75

1364

QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

550186
NEXT ASSY

TOLERANCES
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
.XX .XXX ANG
MATL
FINISH

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	B. Jameson	12-6-74
CHK	T. Laulless	12-13-74
ENG		
APVD		

RAMTEK

TITLE LOGIC DIAGRAM BD #2 BASEBALL (BAT)

SIZE D
SCALE
SHT 4 OF 5
DWG NO. 550285
REV C

LTR	DESCRIPTION	APVD	DATE
A	PROD. RELEASE PER ECO 506263	T.L.	12.13.74
B	REV PER ECO 506272	E.C.	1/6/75
C	REV PER ECO 506284	E.C.	1/20/75

QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

TOLERANCES
UNLESS OTHERWISE SPECIFIED:
REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
.XX .XXX ANG

MATL

FINISH

NEXT ASSY
550286

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	T. Lanchus	12.12.74
CHK	T. Lanchus	12.13.74
ENG		12.13.74
APVD		12.13.74

RAMTEK

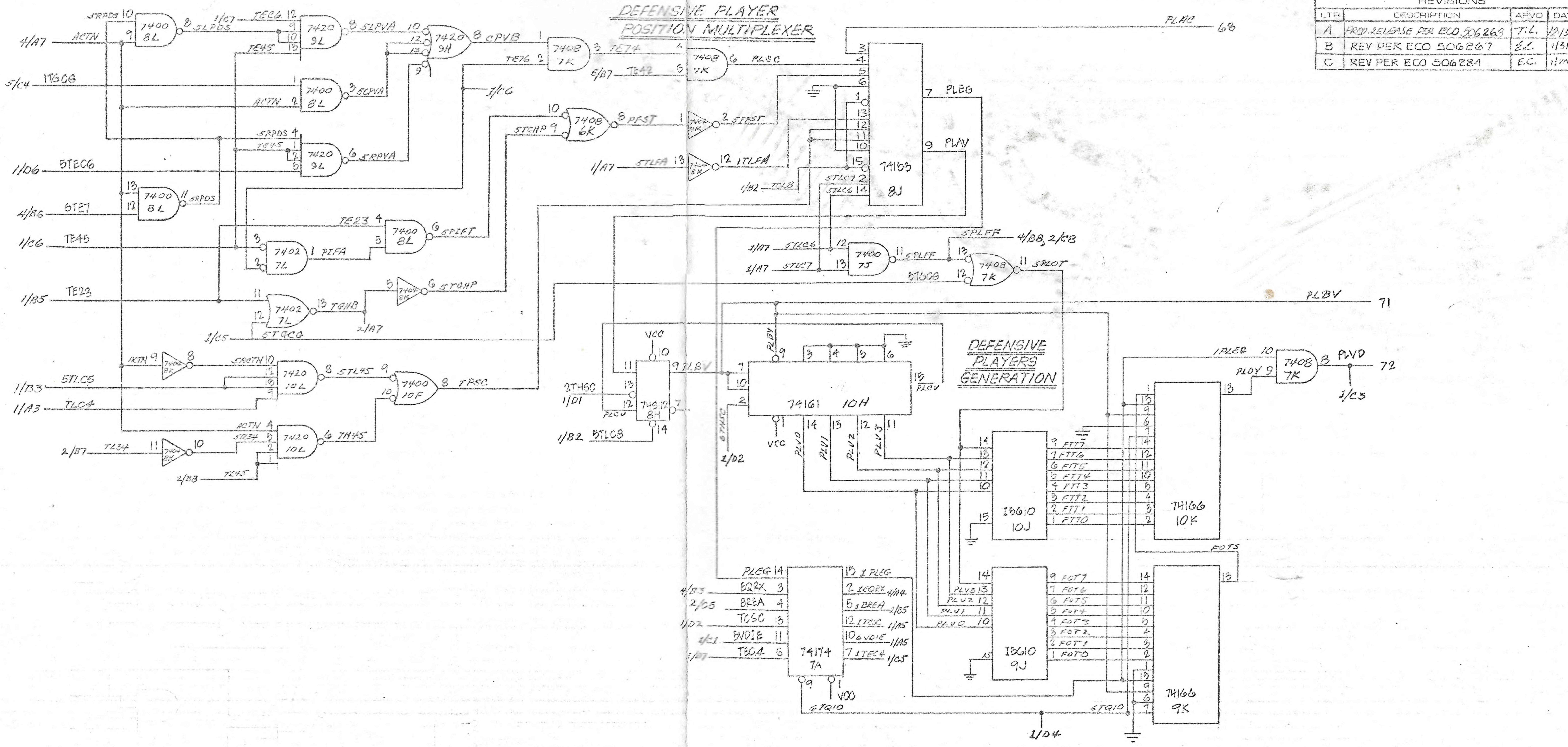
TITLE: LOGIC DIAGRAM BD.# 2
BASEBALL (COUNTERS & NUMBER GENERATOR)

SIZE D
SCALE
SHT 5 OF 5
DWG NO. 550285
REV C

501009 REV: A

NOTICE THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED OR DISCLOSED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF RAMTEK CORPORATION. HOWEVER, IF THIS DRAWING IS SPECIFIED TO BE GIVEN TO ANY BRANCH OF GOVERNMENT THIS DRAWING MAY BE USED AS PERMITTED BY THE DATA CLAUSE PER CONTRACT OR SUBCONTRACT

REVISIONS			
LTR	DESCRIPTION	APVD	DATE
A	PROD.RELEASE PER ECO 506263	T.L.	12.13.74
B	REV PER ECO 506267	E.L.	1/3/75
C	REV PER ECO 506284	E.C.	1/20/75



QTY REQD	PART NO.	ITEM DESCRIPTION			ITEM NO.
LIST OF MATERIALS					

TOLERANCES
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
.XX .XXX ANG

MATL

FINISH

0550185
NEXT ASSY

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	[illegible]	12.11.74
CHK	T. Lanchier	12.13.74
ENG	[illegible]	[illegible]
APVD	[illegible]	[illegible]

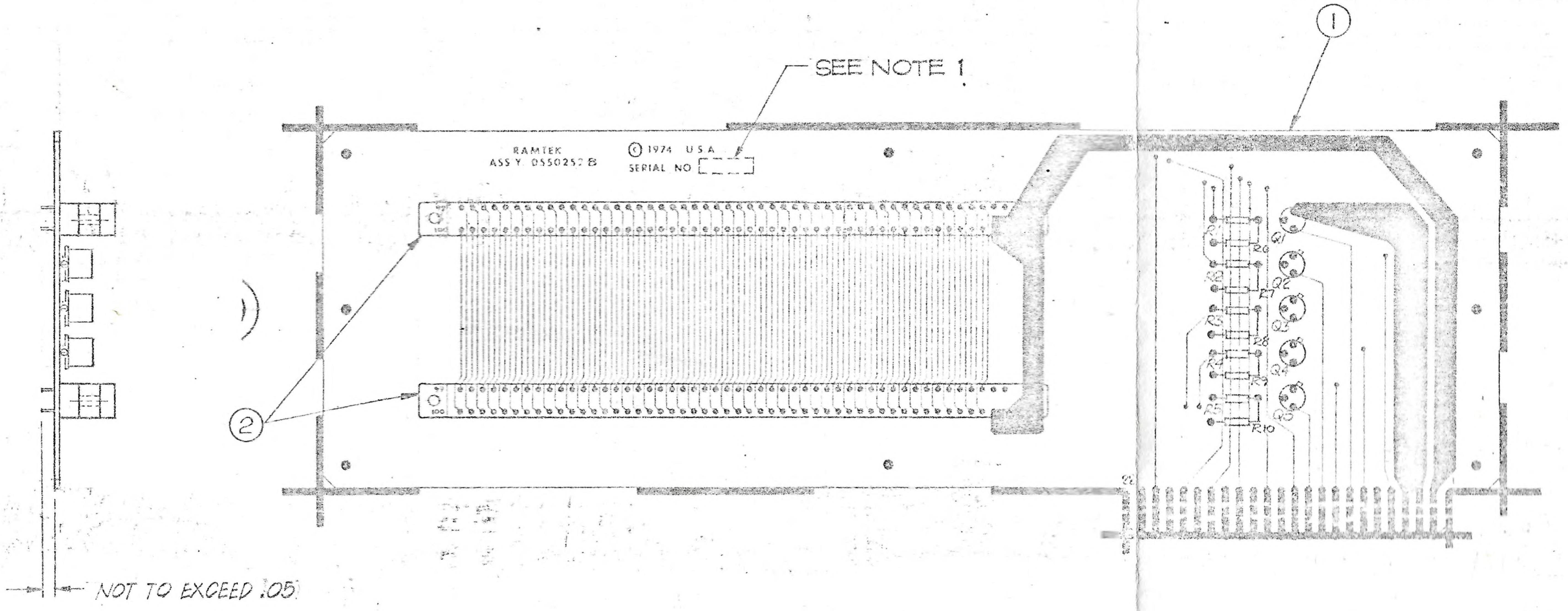
RAMTEK

TITLE LOGIC DIAGRAM BD #1 BASEBALL (DEFENSIVE PLAYERS)

SIZE D SCALE SHT 3 OF 5 DWG NO. 550284 REV C

501002 REV A

REVISIONS			
LTR	DESCRIPTION	APVD	DATE
A	PROD. REL. ECO # 506279		1-5-75
B	REV PER ECO 506511	E.C.	2/26/75



NOTES:

1. MARK APPROPRIATE SERIAL NO. APPROX. WHERE SHOWN.
2. *TRACES ON THIS BOARD DO NOT REFLECT ACTUAL ARTWORK. ALL COMPONENTS ARE AS SHOWN.*

REF. DESIG	QTY REQD	PART NO	ITEM DESCRIPTION	ITEM NO
~~Q1 THRU Q5~~	~~5~~		~~TRANSISTOR, 2N1595~~	~~4~~
~~R1 THRU R10~~	~~10~~		~~RESISTOR, COMP, 560Ω 1/4W, 5 %~~	~~3~~
	~~2~~	~~SAE CPH8100-100ST~~	~~CARD CONN.~~	~~2~~
	~~1~~	~~0550253 A~~	~~P.C. FAB.~~	~~1~~

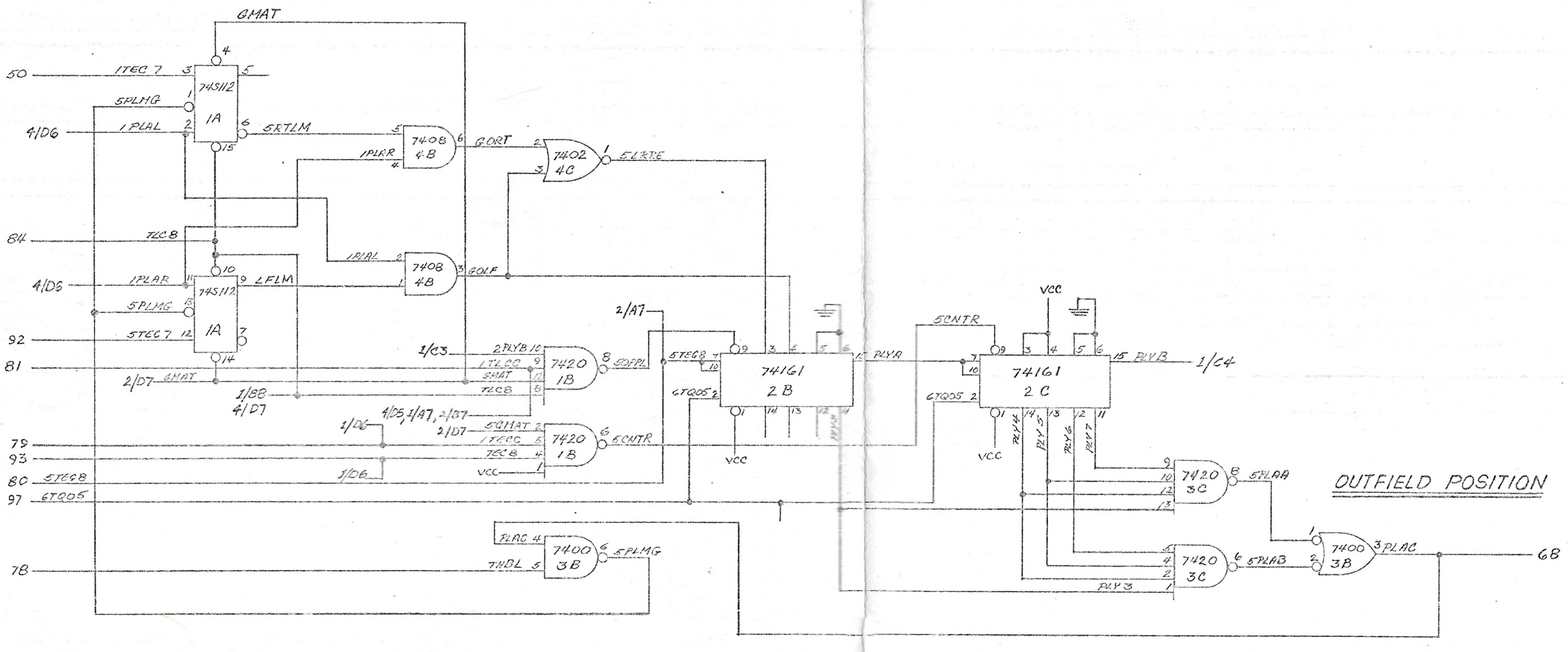
LIST OF MATERIALS

TOLERANCES	DO NOT SCALE DRAWING		RAMTEK
	SIGNATURES	DATE	P.C. ASS'Y (MOTHER) BASEBALL (3.5)
	DWN		SIZE D
	CHK		DWG NO 550252
	ENG		REV B

NOTICE THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH PROVIDED OR DISCLOSED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF RAMTEK CORPORATION. HOWEVER, IF THIS DRAWING IS SPECIFIED TO BE GIVEN TO ANY BRANCH OF GOVERNMENT THIS DRAWING MAY BE USED AS PERMITTED BY THE DATA CLAUSE PER CONTRACT OR SUBCONTRACT

REVISIONS

LTR	DESCRIPTION	APVD	DATE
A	PROD. RELEASE PER ECO 506263	T.L.	12/13/74
B	REV PER ECO 506272	E.C.	1/6/75
C	REV PER ECO 506284	E.C.	1/20/75



OUTFIELD POSITION

QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

TOLERANCES
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
.XX .XXX ANG
MATL
FINISH
0550186
NEXT ASSY

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	ROY NISHI	12/13/74
CHK	T. Laucht	12/13/74
ENG		12/13/74
APVD		12/13/74

RAMTEK

TITLE LOGIC DIAGRAM BD # 2
BASEBALL (OUTFIELD CONTROL)

SIZE D
SCALE
SHT 3 OF 5
DWG NO. 550285
REV C

NOTICE: THIS DRAWING SHALL NOT BE DUPLICATED OR USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS LOANED OR DISCLOSED IN WHOLE OR IN PART WITHOUT WRITTEN CONSENT OF RAMTEK CORPORATION. HOWEVER, IF THIS DRAWING IS SPECIFIED TO BE GIVEN TO ANY BRANCH OF GOVERNMENT THIS DRAWING MAY BE USED AS PERMITTED BY THE DATA CLAUSE PER CONTRACT OR SUBCONTRACT

REVISIONS			
LTR	DESCRIPTION	APVD	DATE
A	PROD. REL. PER ECO 506274	KA	1-6-75

NOTE: PINS 3, 4, 5, 10, 11, AND 12 ARE TIED TOGETHER ON FOIL SIDE OF BOARD WITH AS MUCH GND PLAIN AS POSSIBLE, THIS IS FOR HEAT SINK.

LAST REF. DES.
C28
R48
CR4
Q7

NOTE: ① EACH LM 3900 PACKAGE MUST HAVE BYPASS CAP. OF .1uf FROM PIN 14 TO GND
② All RESISTORS 1/4 WATT
③ All CAPS 15 VOLTS

QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO
LIST OF MATERIALS			

TOLERANCES UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.	DO NOT SCALE DRAWING			RAMTEK
.XX .XXX ANG	SIGNATURES		DATE	TITLE: SOUND SYSTEM BASE BALL CROWD CHEER, SIREN
MATL	DWN	Howell A. Ivy	10 Nov	
	CHK		26 Nov	
FINISH	ENG	Howell A. Ivy		SIZE D SCALE
NEXT ASSY	APVD	R. Jones	1/7/75	SHT 1 OF 1 DWG NO. 550264 REV A

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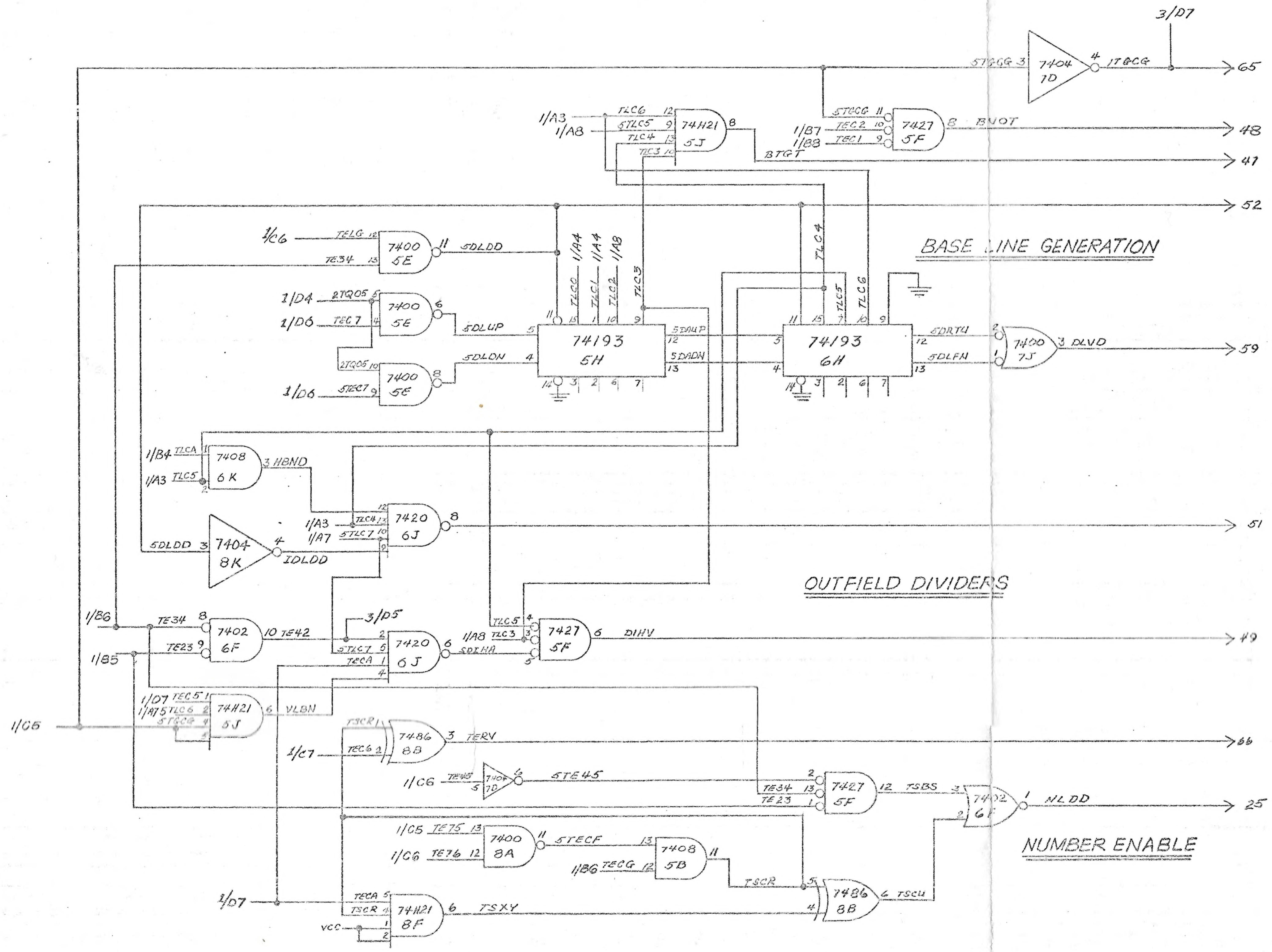
REVISIONS

LTR	DESCRIPTION	APVD	DATE
A	PROD. RELEASE PER ECO 506263	T.L.	12-B-74
B	REV PER ECO 506267	E.C.	1/3/75
C	REV PER ECO 506284	E.C.	1/28/75



QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

TOLERANCES
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
.XX .XXX ANG
MATL
FINISH

0550185
NEXT ASSY

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	T. Landers	12/4/74
CHK		
ENG	[illegible]	12/4/7
APVD	[illegible]	[illegible]

RAMTEK

TITLE LOGIC DIAGRAM BD #1
BASEBALL

SIZE D
SCALE
SHT 5 OF 5
DWG NO. 550284
REV C

LTR	DESCRIPTION	APVD	DATE
A	PROD. RELEASE PER ECO 506263	T.L.	12.13.74
B	REV PER ECO 506267	E.C.	1/3/75
C	REV PER ECO 506284	E.C.	1/20/75

47912

QTY REQD	PART NO.	ITEM DESCRIPTION	ITEM NO.

LIST OF MATERIALS

TOLERANCES
UNLESS OTHERWISE SPECIFIED:
REMOVE ALL BURRS & BREAK
ALL SHARP EDGES.
.XX .XXX ANG
MATL
FINISH
0550185
NEXT ASSY

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	T. Lauchin	12.11.74
CHK	T. Lauchin	12.13.74
ENG	[illegible]	12/13
APVD	[illegible]	[illegible]

RAMTEK

TITLE LOGIC DIAGRAM BD #1
BASEBALL (BASE RUNNERS)

SIZE D
SCALE
SHT 2 OF 5
DWG NO. 550284
REV C

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REVISIONS

LTR	DESCRIPTION	APVD	DATE
A	PROD RELEASE PER ECO 506263	T.L.	12·13·74
B	REV PER ECO 506267	E.C.	1/3/75
C	REV PER ECO 506284	E.C.	1/20/75

QTY REQD | PART NO. | ITEM DESCRIPTION | ITEM NO.

LIST OF MATERIALS

TOLERANCES
UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS & BREAK ALL SHARP EDGES.
.XX .XXX ANG
MATL
FINISH
0550185
NEXT ASSY

DO NOT SCALE DRAWING

SIGNATURES		DATE
DWN	T. Laukus	12·11·74
CHK	T. Laukus	12·13·74
ENG		
APVD		

RAMTEK

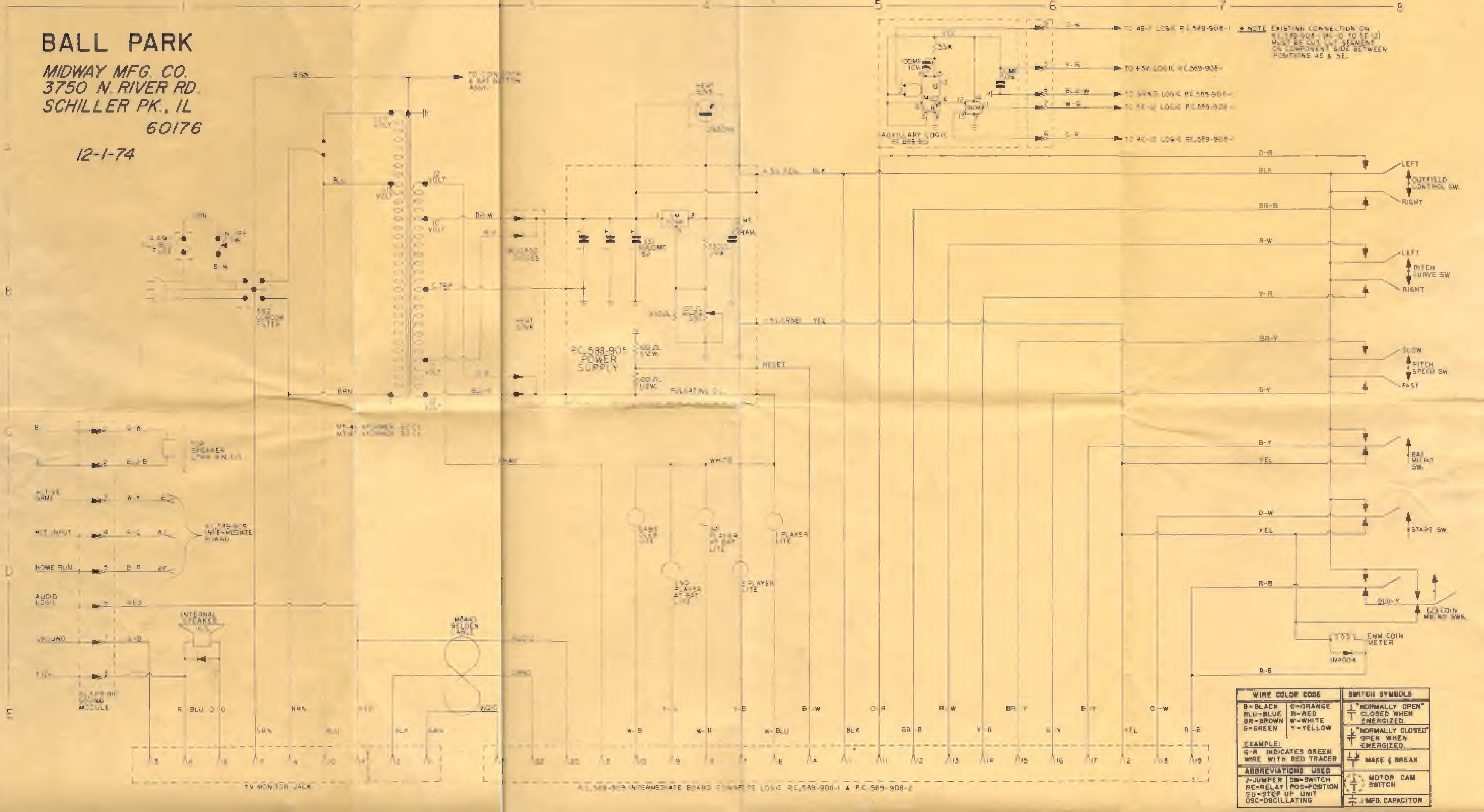
TITLE: LOGIC DIAGRAM BD #1 BASEBALL (BASE CONDITION CONTROL)

SIZE D SCALE SHT 1 OF 2 DWG NO. 550284 REV C

BALL PARK

MIDWAY MFG. CO.
3750 N. RIVER RD.
SCHILLER PK., IL
60176

12-1-74


1
2
3
4
5
6
7
8
A
B
C
D
E
TO COIN DOOR & BAT BUTTON ASSY.
POWER SUPPLY
P.C. 589-905 POWER SUPPLY
HEAT SINK
+5V. FDL.
RESET
PULSATING D.C.
GND
LINE FILTER
AUXILIARY LOGIC P.C. 589-913
TO 4E-7 LOGIC P.C. 589-908-1
TO +5V. LOGIC P.C. 589-908-1
TO GRND. LOGIC P.C. 589-908-1
TO 5E-12 LOGIC P.C. 589-908-1
TO 4C-12 LOGIC P.C. 589-908-1
* NOTE EXISTING CONNECTION ON P.C. 589-908-1 (4C-10 TO 5E-12) MUST BE CUT. CUT SEGMENT ON COMPONENT SIDE BETWEEN POSITIONS 4E & 5E.
LEFT
OUTFIELD CONTROL SW.
RIGHT
LEFT
PITCH CURVE SW.
RIGHT
SLOW
PITCH SPEED SW.
FAST
BAT MICRO SW.
START SW.
COIN MICRO SWS.
ENM COIN METER
SPEAKER
INTERNAL SPEAKER
BELDEN CABLE
GAME OVER LITE
1ST PLAYER AT BAT LITE
1 PLAYER LITE
2ND PLAYER AT BAT LITE
2 PLAYER LITE
ACTIVE GAME
HIT INPUT
HOME RUN
AUDIO LOGIC
GROUND
P.C. 589-909 INTERMEDIATE BOARD
SOUND MODULE
TV MONITOR JACK
P.C. 589-909 INTERMEDIATE BOARD CONNECTS LOGIC P.C. 589-908-1 & P.C. 589-908-2
O-R
BLK
BR-B
R-W
Y-R
BR-Y
G-Y
B-Y
YEL
O-W
R-B
R-G
BLU-Y
WHITE
BRN

WIRE COLOR CODE

B=BLACK	O=ORANGE
BLU=BLUE	R=RED
BR=BROWN	W=WHITE
G=GREEN	Y=YELLOW

EXAMPLE:
G-R INDICATES GREEN WIRE WITH RED TRACER

ABBREVIATIONS USED

J=JUMPER	SW=SWITCH
RE=RELAY	POS=POSITION
SU=STEP UP UNIT	
OSC=OSCILLATING	

SWITCH SYMBOLS

"NORMALLY OPEN" CLOSED WHEN ENERGIZED.
"NORMALLY CLOSED" OPEN WHEN ENERGIZED.
MAKE & BREAK
MOTOR CAM SWITCH
MFD. CAPACITOR